PALMAE MALESICAE—XIII

The Genus Myrialepis

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The name Myrialepis was coined by Beccari to show that the fruits of this genus are distinguished in having innumerable minute, irregularly set scales, a character sufficient to distinguish this genus at once from all other rattans. Its affinities are very close to Plectocomiopsis whose fruit scales are comparatively also very small for rattans, but are much larger than those in Myrialepis, and are arranged in regular rows. The Myrialepis plants, like those of Korthalsia and Plectocomiopsis, are scandent and tufted, each individual stem terminating its growth with an inflorescence (monocarpic). The inflorescence is either male or female, the plants being dioecious. The side branches of the inflorescence are produced each in the axils of reduced leaves, and emerge each by the mouth of the axillant leaf-sheath; these branches are divided again once in female plants and twice in male, before they produce spikelets. Leaves are large having no trace of an ocrea at the transition of the sheath into the petiole; they bear a cirrus at the end except when they are produced in the early stages of the stem. Leaflets are linear-lanceolate, provided with a single midrib and many sub-primary ones on both sides of the midrib, punctulate with minute scales in the lower surface. Female flowers are solitary at each spathel, with no male or neuter flower attending; each flower has a 3-lobed calyx, a longer 3-parted corolla, a membranous 6-lobed staminodal cup adnate at base to the corolla, and a 3-locular globose ovary. The fruit is one-seeded, globose, and covered with innumerable minute, irregularly set scales. The seed is slightly broader than long, having a homogeneous albumen and a basal embryo; this last is seated exactly opposite to the chalazal cavity which is punctiform in the cross section of the fruit, and short linear in length. Male inflorescences are more divided than the female, but almost similar; male flowers not seen.

The genus is monotypic and was based on specimens collected by Scortechini in Perak. The syntypes which have been reproduced by Beccari (1918) by photographic plates, are from Beccari's herbarium in Florence (Scortechini 513[b] and sn.). Hooker f. (Fl. Brit. Ind. VI, 1893 p. 480) who had no access to Beccari's herbarium, quoted Scortechini 457[b] in Kew Herbarium and failed to make any mention of the actual syntypes on which Beccari had based the genus and the species. A specimen bearing this Scortechini's collection number (preserved in Beccari's herbarium) has been tentatively identified by Beccari (1918) as being a sterile stage of *Plectocomiopsis Wrayi.*

Apparently the genus is widely distributed in Malaya and was at one time very common in Singapore. Beccari (1918) referred tentatively to this genus some sterile specimens collected from Sumatra, and stated that *Plectocomiopsis paradoxus* from Burma and *P. floribundus* from Indo-China might prove to be the species of Myrialepis; of these two species, however, female flowers and fruit are not known.

Myrialepis Scortechinii Becc. in Hook. f., Fl. Brit. Ind. VI (1893) 480; Ridl. in Journ. Roy. Asiat. Soc. Str. Br. 33 (1900) 176; Becc. in Ann. Roy. Bot. Gard. Calc, XI (1908) 29 et XII, 2 (1918) 64 tt. 40, 41 et IIB fig. 1–7. **(Figs. 15 and 16).**

Plectocomiopsis annulatus Ridl., Mat. Fl. Mal. Pen. II (1907) 213 et Fl. Mal. Pen. V (1925) 66.

P. Scortechinii (Becc.) Ridl., Mal. cit. II (1907) 213 et Flora cit. V (1925) 66.

Stem tufted, scandent, about 30 m. long, when in sheath 5–6 cm. in diam. *Leaf-sheaths* non-gibbous above, obliquely truncate at the apex, gradually passing into petiole without any trace of an ocrea at the mouth, strongly striate vertically, armed in young plants with 3–4 cm. long spines confluent at base and arranged in oblique rings or series; in adult plants the spines on the sheaths arranged in groups of 4–5 or less in each series. *Leaves* large, cirriferous; petiole almost absent in upper leaves, of varying dimensions in the lower leaves, armed on the dorsum with solitary or digitate claws; the pinniferous part about 2 m. or more long; the leaves axillant to the inflorescence branches reduced, subsessible, 20–40 cm. long, terminating in a cirrus usually slightly longer than the rachis. *Leaflets* numerous, in alternate or opposite groups of 2–4 on each, almost equidistant in each group, lanceolate, acute at base, acuminate at apex; unarmed except somewhat ciliate in the margins of the upper half, minutely lepidote in the lower surface, provided with a mid-costa and 5–7 fine sub-primary costae; the largest 35–45 cm. long, 3–5·5 cm. wide; upper ones gradually smaller; leaflets on

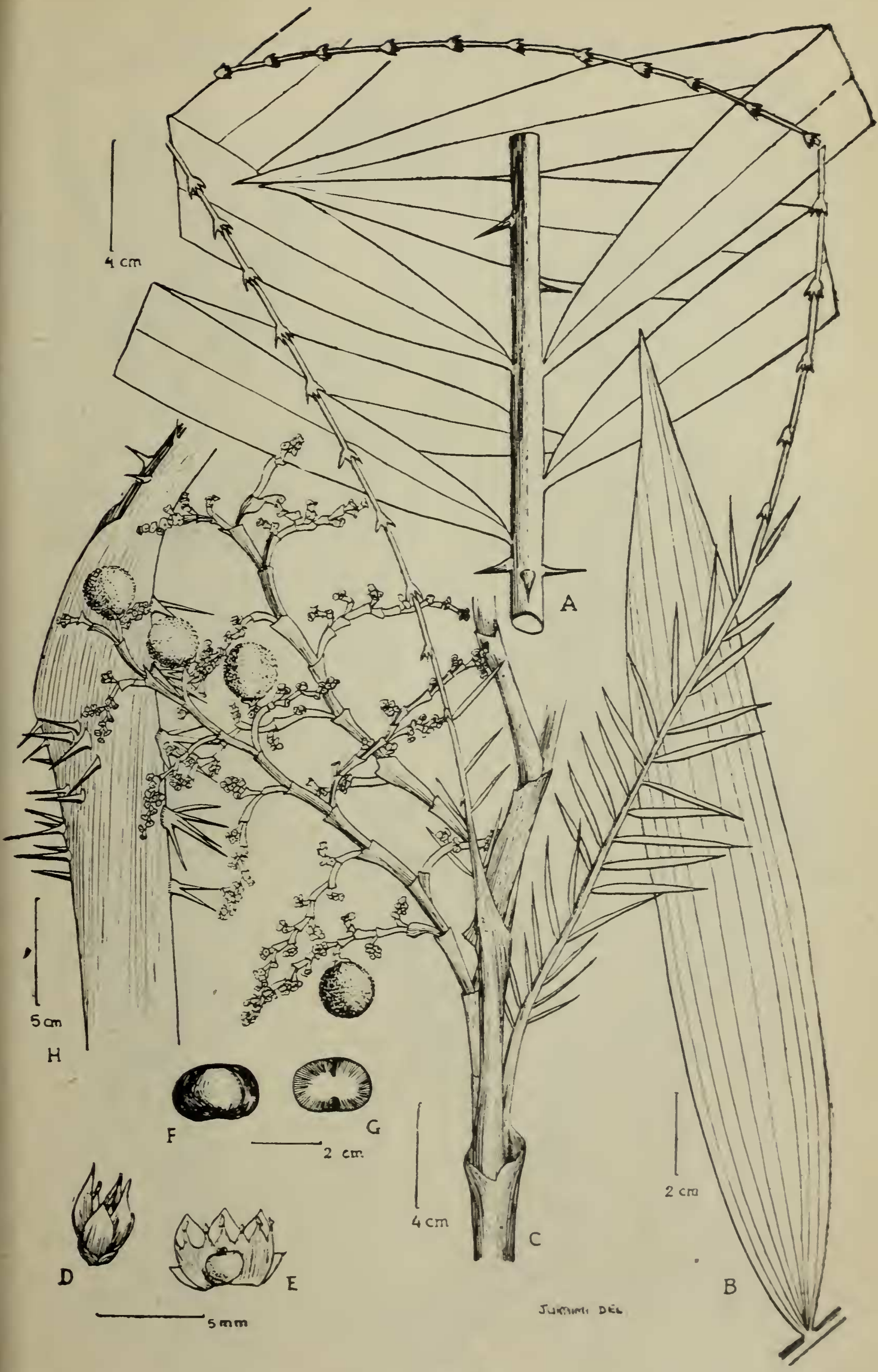


Fig. 15. *Myrialepis Scortechinii* ♀ *(Furtado 33,135)*.
A, Particula frondis mediana. B, Foliolum mesiale. C, Fragmentum caudicis apicale cum spadicibus et frondibus axillantibus. D, Flos ♀. E, Flos ♀ apertus ut insertio pistilli staminumque appareat. F. Semen. G. Semen longitudinaliter discissum. H, Frondis vagina.

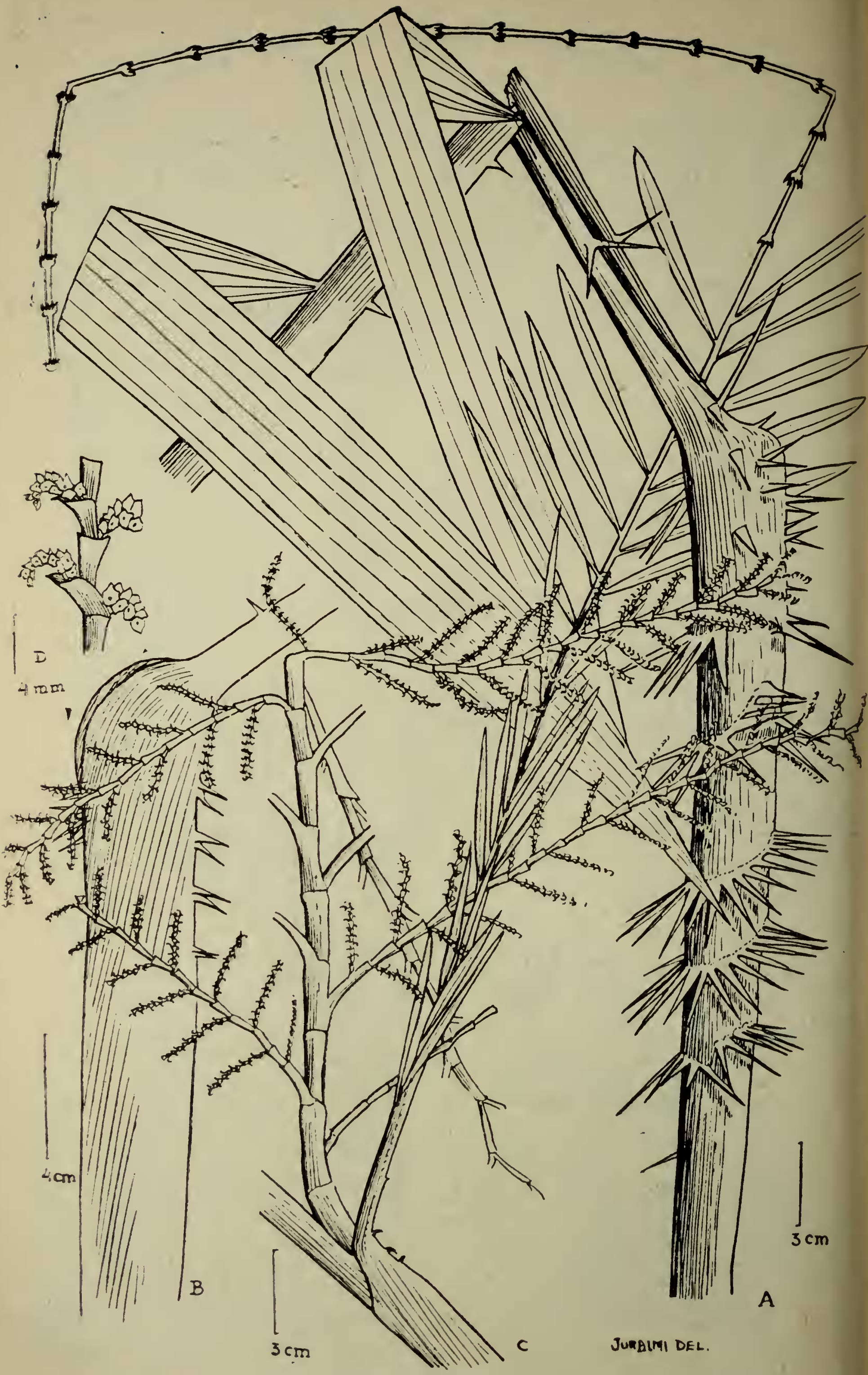


Fig. 16. *Myrialepis Scortechinii* ♂ *(Furtado 37,948).*
A, Vagina frondis cum petiolo ex caudice juvenili. B, Vagina frondis ex caudice adulto. C, Fragmentum caudicis apicale cum spadice et fronde axillanti. D, Particula spicae ut insertio spathellae et spiculae appareat, floribus omnibus delapsis.

the reduced leaves borne in flowering portion of the axis 7–10 cm. long, linear. *Female inflorescence* a terminal panicle, with 30–40 cm. long branches in the axils of reduced leaves; primary spathes tubular, unarmed, slightly apiculate on one side; secondary branches 5–30 cm. long flexuous, bearing distichously short alternate spikelets 4–10 on each side; secondary spathes similar to the primary, but considerably shorter; spikelets scorpioid, 1–3 cm. long, with 3–5 flowers; spathes infundibuliform, striate, triangular-ligulate on one side; involucre concave or shallow cupular, almost explanate, 3-toothed, 2-keeled; flowers solitary with no male or neuter attendant, 5–7 mm. long, ovoid; calyx striate parted into broad acute segments; corolla nearly twice as long as the calyx; staminodes 6, alternipetalous, united at base into a membranous cup round the ovary, adnate to the corolla at base; ovary globose, 3-locular, densely covered with minute scales. *Fruit* one-seeded, globular, 24–30 mm. in diam., covered with innumberable, minute irregularly imbricate scales, each less than 1 mm. in width; perianth persistent; calyx subcallous at base, somewhat cupular; corolla almost explanate; seed oblong, somewhat depressed at base, 22 mm. in transverse length, 13 mm. in transverse breadth, and 12–15 mm. in height; albumen homogeneous with brownish tinges arranged radiately to make the albumen appear like a large light brown centre surrounded by a darker coloured layer in the periphery; embryo seated at base opposite the linear, almost occluded chalazal cavity having a punctiform opening at apex. *Male inflorescence* larger than the female, but similarly branched; the secondary branches provided one each side with 8–12 spikelet bearing branchlets, each 3–7 cm. long; tertiary spathes broadly funnel-shaped, producing on one side a long triangular ligule; spikelets up to 10 mm. long, somewhat scorpioid, gradually decreasing in length towards the apex, carrying flowers in two collateral series, each series with 4–6 flowers; spathels on spikelets short, approximate, concave bracteolate; involucre shallow cupular, 3-toothed; flowers not seen.

MALAYA: *Kemaman,* Bukit Kajang (Corner 30,576 as *Rotan Geylang*). *Pahang* Termeloh (Hamid 10,695 as *Rotan Sengkalor*). *Selangor,* Sungei Buluh (Ridley 13,449). *Singapore,* Garden (Ridley 12,500 syntype of *P. annulatus;* cult.: Kiah sn; Furtado 37,948; 36,502; and 33,135); Bukit Mandai (Ridley sn. on 22–V–1900, syntype of *P. annulatus;* Ridley 5,860); Chan Chu Kang (Ridley 3,503 as Rotan Gajah); Kranji (Ridley 5,860 as *Rotan Bulan*); Bukit Timah (Ridley 11,457, syntype of *P. annulatus*).

After studying the syntypes of *P. annulatus* in the Singapore herbarium and the available duplicates in the Berlin and Beccari's herbaria (my notes about these were made in 1933 when I had visited these herbaria), I came to the conclusion that this material was not mixed in any way and that Beccari was right in reducing *P. annulatus* to *M. Scortechinii.* Ridley has referred the specimens with small leaflets to *M. Scortechinii,* separating those with larger leaflets to *P. annulatus;* but he has overlooked the reduced leaves (less than 30 cm. long in the pinniferous part) which are found in one of the sheaths (*Ridley* 12,500) in the Singapore herbarium. This conclusion is further

supported by Ridley's treatment of the two species in the Materials II (1907), both in the key and in the text. Further under *P. Scortechinii* (*M. Scortechinii*) Ridley stated as follows: "In habit, armature and foliage this much resembles *Plectocomiopsis annulatus* and the fruit is quite similar.'

In his Flora V (1925), however, Ridley did not accept Beccari's reduction and thought that "owing to an accidental transference of a label in the Kew Herbarium Beccari mistook a male specimen for the male inflorescence of his *Myrialepis Scortechinii* and reduced my *P. annulatus* to this species, describing and figuring the male flowers as those of *Myrialepis*." Apart from the fact that he uses the term 'male flowers' to mean male inflorescence in which not a single flower was available, Ridley is very misleading in this his statement. In reducing *P. annulatus* to *M. Scortechinii*, Beccari did not consider the Kew specimens at all, but only the specimens from his own personal herbarium and one from the Calcutta herbarium; and so whatever mistake that might have been made in mounting the specimens in the Kew herbarium, it was immaterial to the point. Moreover, Beccari considered not only the male duplicate of the syntype (Ridley 11,457) of *P. annulatus*, but also of the female syntype (Ridley 12,500) which bears fruit.

In his Flora, Ridley has keyed *P. annulatus* and *P. Scortechinii* to have 'regular small' and 'quite irregular minute' scales to the fruit respectively, but has overlooked the fact that in the text the word 'minute' is applied to the scales of the both the species, as it was done also in the Materials.

In view of this therefore it appears that the Kew duplicates of the syntypes of *P. annulatus* were correctly labelled until Ridley altered their determinations for his Flora.

In Singapore herbarium there are two of Ridley's collections both of which bear the same number 5,860, one from Bukit Mandai, and the other from Kranji. However from the duplicates in Florence and Calcutta cited by Beccari, it appears that the Bukit Mandai collection should have been numbered 5,680 in the Singapore herbarium.

Ridley gives the vernacular name as *Rotan Rajah*, but the name has been entered on the two Singapore sheets as *Rotan Gajah;* probably the latter name is the correct one.